

Notice of Allowability

Application No.

10/709,135

Examiner

Tina M. Wong

Applicant(s)

VELSHER, BENNE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment/arguments received 15 August 2006.
2. ☒ The allowed claim(s) is/are 1-13 and 15-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date attached
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Kurt Rauchenbach on 17 October 2006.

The application has been amended as follows:

1. (Currently amended) A multi-source optical module comprising:
 - a) an optical circuit that is positioned on a base of the multi-source optical module, the optical circuit having a first and a second optical input;
 - b) a first and a second optical source that are positioned on the base of the multi-source optical module relative to the optical circuit; and
 - c) a first lens being positioned between an output of the first optical source and the first optical input of the optical circuit, a second lens being positioned between an output of the second optical source and the second input of the optical circuit, at least one of the first and the second lenses being positionable with a positioning member that is shaped to facilitate moving the lens in the X, Y, Z and theta axis with a micromanipulator stage so that the output of a respective one of the first and second optical sources and a respective one of the first and the second optical inputs of the optical circuit are aligned.

16. (Currently amended) A method of manufacturing a multi-source optical module, the method comprising:

- a) attaching an optical circuit to a base of the multi-source optical module;
- b) attaching a first and a second optical source to the base of the multi-source optical module;
- c) positioning a first lens between an output of the first optical source and a first optical input of the optical circuit and positioning a second lens between an output of the second optical source and a second optical input of the optical circuit, wherein the first and the second lenses are positioned with a positioning member that is shaped to facilitate moving the lens in the X, Y, Z and theta axis with a micromanipulator stage; and
- d) manipulating at least one of the first and the second lenses to obtain a desired coupling between a respective output of the first and second optical source and a respective one of the first and second optical inputs of the optical circuit.

25. (currently amended) A multi-source optical module comprising:

- a) means for attaching an optical circuit to a base of a multi-source optical module;
- b) means for attaching a first and a second optical source to the base of the multi-source optical module;
- c) means for positioning a first lens between an output of the first optical source and a first optical input of the optical circuit and for positioning a second lens between an output of the second optical source and a second optical input of the

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optical circuit, wherein the means for positioning includes a positioning member that is shaped to facilitate moving the lens in the X, Y, Z and theta axis with a micromanipulator stage;

d) means for manipulating at least one of the first and the second lenses to obtain a desired coupling between a respective output of the first and second optical source and a respective one of the first and second optical inputs of the optical circuit; and

e) means for fixing the at least one of the first and the second lenses in place.

Examiner's Statement Of Reasons For Allowance

The following is an examiner's statement of reasons for allowance:

The prior art of record fails to disclose or reasonably suggest a multi-source optical module including all of the limitations of the base claims but more specifically does not teach positioning a micromanipulator stage between the sources and the outputs and using the micromanipulator stage for aligning both lenses in the X, Y, Z and theta axis in combination with all the other claimed components.

A close prior art of record is U.S. Patent 6,445,837 to Hanza. Hanza discloses a similar configuration of optical components but fails to disclose or reasonably suggest positioning the lens using a micromanipulator stage in the X, Y, Z and theta directions. Contrary to Applicant, Hanza using a lithography technique that takes an electron beam to form still lenses into the substrate.

Therefore, claims 1-13 and 15-25 are allowed.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. None of the documents cited by the Examiner discloses or reasonably suggests the allowable subject matter discussed above.

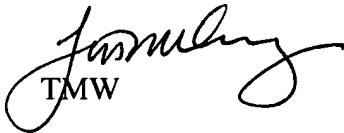
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M. Wong whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



TMW



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PRIMARY EXAMINER